RICHARD SPRUCE AND THE ETHNOBOTANY OF THE NORTHWEST AMAZON

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The Indians of the northwest Amazon, especially those of the Brazilian and Colombian region of the Río Vaupés, have a rich ethnopharmacological lore. This wealth of knowledge of the presumed medicinal properties of plants, however, is just coming to the fore — and most certainly not too soon, considering its disappearance in the face of advancing acculturation and the inroads of civilization.

Richard Spruce, the British plant-explorer who opened up this region to science between 1851 and 1854, must be counted amongst the greatest naturalists ever to have engaged in collecting and studies anywhere in virgin tropical territories. As a result of his meticulous observation and insatiable curiosity, a basis for our understanding of great areas of the Amazon Valley and of the northern Andes was early and most firmly laid. Not only did Spruce advance taxonomy and floristics, but he made many important observations in ethnology, linguistics and geology. Some of the most significant discoveries in connection with the hallucinogens derived from *Banisteriopsis Caapi* (Spruce ex Griseb.) Morton and *Anadenanthera* (*Piptadenia*) *peregrina* (L.) Speg. are due to his first hand field observations. And he was particularly interested in ethnobotanical lore concerning the palms (Fig. 1).

It has always been difficult for me to understand how several very important ethnobotanical discoveries eluded such a perspicacious scientist who spent four years on the Rio Negro and its tributaries. The use of *Virola* in the preparation of an hallucinogenic snuff provides a good example. Spruce gave special attention to this myristicaceous genus and collected the material on which at least nine new species were described. Although he was definitely interested in and had personal contact with several hallucinogenic plants, he failed to learn that the Indians

Figure 1. Richard Spruce. From a photograph in the Gray Herbarium. Drawn by E. W. Smith.

employed the red bark-resin of *Virola* in elaborating a snuff used by medicine men and, in some tribes, by the whole male population.

Another curious aspect of Spruce's ethnobotanical observations was his failure to discover "simples" that were employed medicinally by Indians of the northwest Amazon. "The Indians," he says, "have a few household remedies, but by far the greater portion of these have come into use since the advent of the white man from Europe and the negro from Africa." Von Martius remarks nearly the same thing in the introduction to his *Systema materiae medicae vegetabilis brasiliensis* (1843, p.xvii) . . . . "Of external applications, I have seen only the following. For a wound or bruise or swelling, the milky juice of some tree is spread thick on the skin, where it hardens into a sort of plaster, and is allowed to remain on until it falls of itself. Almost any milky tree may serve, if the juice be not acrid; but the Heveas (India-rubbers), Sapotads, and some Clusias are preferred. Such a plaster has sometimes an excellent effect in protecting the injured part from the external air."

This experience of Spruce's is difficult to reconcile with my own observations during the past 30 or more years amongst the many tribes along the Colombian Ríos Vaupés, Apaporis and Caquetá and their tributaries, where I collected large numbers of plants reputedly valuable alone or in prescriptions for a variety of common diseases.

It is true that, in this whole region, the "medicines" *par excellence* — and those which are administered not to the patient but to the medicine man — are the hallucinogens. The "medicines" with psychic properties that enable the medicine-man easily through hallucinations to see or converse with malevolent spirits from whom come all illness and death are usually far more important in native cultures than those medicines with purely physical properties. It is, however, most certainly not true that the Indians of the northwest Amazon do not possess or denigrate those medicinal plants which have properties physi-

cally to reduce pain or suffering, lessen uncomfortable symptoms of illness or even apparently cure pathological conditions. They have many such medicinal plants and are willing to share their knowledge with the serious, enquiring visitor. It is not only I who have found these people to possess a deep knowledge of medicinal plants; other botanists and several anthropologists have likewise been impressed with the wealth of native medical folklore in the region.

Spruce's surprising statements concerning the lack of knowledge and use of medicinal plants in the northwest Amazon may be explained by his difficulty in spending long periods of time with aboriginal peoples. We must always remember that Spruce was at work well over a century ago. "I have never," he wrote, "been so fortunate as to see a genuine payé [medicine-man] at work. Among the civilized Indians, the Christian padre has supplanted the pagan payé. . . . With the native and still unchristianised tribes, I have for the most part held only passing intercourse during some of my voyages. Once I lived for seven months at a time among them, on the river Vaupés, but even there I failed to catch a payé. When I was exploring the Jauarité cataracts on that river, and was the guest of Uiáca, the venerable chief of the Tucáno nation, news came . . . that a famous pavé . . . would arrive that night and remain until next day, and I congratulated myself on so fine a chance of getting to know some of the secrets of his 'medicine'. . . . When he learnt that there was a white payé (meaning myself) in the village, he and his attendants immediately threw back into the canoe his goods, which they had begun to disembark, and resumed their dangerous voyage down the river in the night-time. I was told he had with him several palm-leaf boxes, containing his apparatus. . . . I could only regret that his dread of a supposed rival had prevented the interview which to me would have been full of interest; the more so as I was prepared to barter with him for the whole of his materia medica, if my stock-in-trade would have sufficed."

It is amply clear from this statement, from Spruce's reports of other ethnobotanical observations and from the rich collections of artifacts which he collected and sent to the Economic Botany Museum of the Royal Botanic Gardens at Kew that he was not — as have been a number of modern botanists working in South America's tropical regions — prejudiced against aboriginal uses of and beliefs about plants. He was certainly far from being a prejudiced man. An explanation of his failure to note the rich ethnopharmacological lore of this region may have several facets. Spruce may truly have been too busy and, much of the time, too ill to delve into this specialized field so tangential to floristic and taxonomic studies and collections. Furthermore, he may, perhaps, have erred in assuming that all "medicinal" knowledge resided with the payé, or medicine man. I have consistently found that the payé, insofar as plants are concerned, often knows relatively little about plants and usually manipulates "sacred" plants, oftentimes the hallucinogens or other psychoactive species, such as coca and tobacco, and employs them "medicinally" in magical ways. Most tribes have what we might term "regular doctors", chiefs or "curacas", who do not normally use magic and who are well provided with a general knowledge of the curative or presumed therapeutic value of plants — that is, those plants with actual physically active properties that can relieve or cure ills of the body.

They could justly be termed the botanists of the societies. They work cooperatively with the payés or medicine men, very frequently referring difficult or recalcitrant cases to these "specialists" who, naturally, are generally considered to be practitioners of a higher rank. It is, naturally, with these "regular doctors" and their knowledge that the ethnopharmacologist or ethnobotanist must primarily be involved (Fig. 2).

Whether or not in Spruce's time — a century and a quarter ago — such practitioners did not exist we cannot now state with certainty. It is, however, most probable that they did exist and did practice their skill, although perhaps

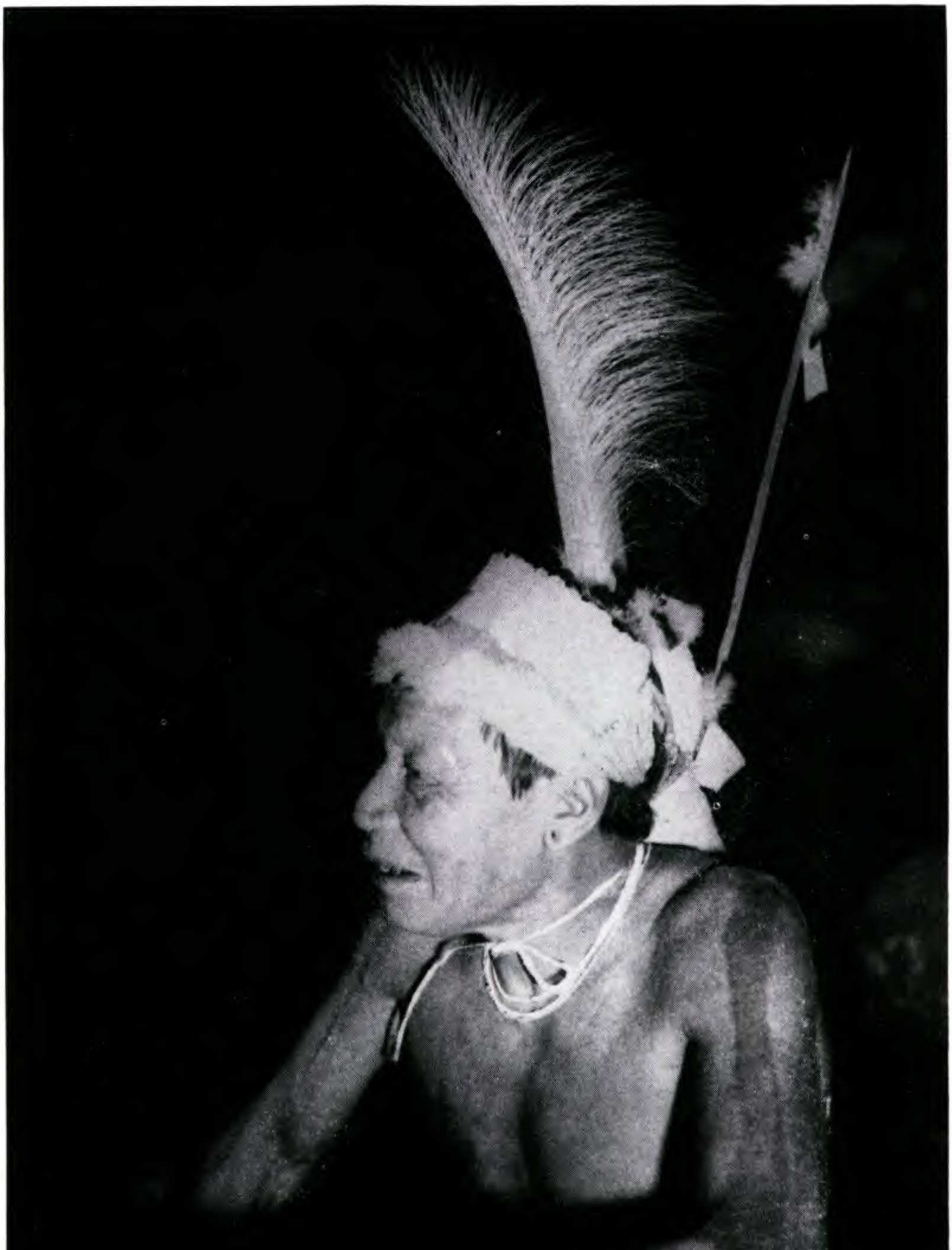

Figure 2. Makuna Indian medicine man under the influence of caapi prepared from *Banisteriopsis Caapi* (Spruce ex Griseb.) Morton. Río Popeyacá, Amazonas, Colombia. Photograph by Guillermo Cabo O.

not with so much freedom from control of the payés as today. Spruce's surmise that the few household remedies practiced amongst these peoples may have come in with Europeans or negroes is open to serious doubt, if only from the fact that the plants and uses characteristic of the household medicine of the northwest Amazon are so utterly different.

SELECTED BIBLIOGRAPHY

ALTSCHUL, SIRI VON REIS. 1972. The genus Anadenanthera in Amerindian cultures. Botanical Museum of Harvard University, Cambridge, Mass.

BRUZZI ALVES DA SILVA, A. 1962. Civilizacão indígena do Uaupés. Linográfica Editôra, Ltda., São Paulo, Brazil.

GARCÍA BARRIGA, H. 1974, 1975. Flora medicinal de Colombia; botánica médica. 2 vols. Instituto de Ciencias Naturales, Universidad Nacional, Bogotá, Colombia.

GOLDMAN, I. 1963. The Cubeo. Illinois Studies in Anthropology, No. 2. University of Illinois Press, Urbana, Illinois.

KOCH-GRÜNBERG, T. 1909, 1910. Zwei Jahre unter den Indianern. 2 vols. Ernst Wasmuth, A.-G., Berlin, Germany.

REICHEL-DOLMATOFF, G. 1968. Desana. Universidad de los Andes, Bogotá, Colombia.

———. 1971. Amazonian cosmos. University of Chicago Press, Chicago, Illinois.

———. 1975. Shamanism and the jaguar. Temple University Press, Philadelphia, Pennsylvania.

SCHULTES, R. E. 1951. Plantae Austro-Americanae. VII. De festo seculari Ricardi Sprucei America Australi adventu commemoratio atque de plantis principaliter Vallis Amazonicis diversae observationes. Bot. Mus. Leafl., Harvard University **15**: 29-78.

———. 1953. Richard Spruce still lives. North. Gardener **7**: 20-27; 55-61; 87-93; 121-125.

———. 1961. Tapping our heritage of ethnobotanical lore. Chemurg. Digest **20**: 10-12.

———. 1962. The role of the ethnobotanist in the search for new medicinal plants. Lloydia **25**: 257-266.

———. 1967. The place of ethnobotany in the ethnopharmacologic search for psychotomimetic drugs. Pp. 33-57 *In:* D. Efron, (Ed.), Ethnopharmacologic Search for Psychoactive Drugs. Public Health Service Publ. No. 1645, U.S. Gov't Printing Office, Washington, D.C.

———. 1968. The impact of Spruce's Amazonian explorations on modern phytochemical research. Ciência e Cultura **20** (No. 1): 37-49.

———. 1968. Some impacts of Spruce's explorations on modern phytochemical research. Rhodora **70:** 313-338.

———. 1970. Foreword (pp. v-x) *In:* R. Spruce, [A. R. Wallace (Ed.)], Notes of a Botanist on the Amazon and Andes. I. [Revised edition, reprinted] Johnson Reprint Corporation, New York, N.Y.

———. 1972. From witch doctor to modern medicine. Arnoldia **32:** 198-219.

——— and B. HOLMSTEDT. 1968. De plantis toxicariis e Mundo Novo tropicale commentationes. II. The vegetal ingredients of the Myristicaceous snuffs of the northwest Amazon. Rhodora **70:** 113-160.

———, B. HOLMSTEDT, and J.-E. LINDGREN. 1969. De plantis toxicariis e Mundo Novo tropicale commentationes. III. Phytochemical examination of Spruce's original collection of *Banisteriopsis Caapi.* Bot. Mus. Leafl., Harvard Univ. **22:** 121-132.

——— and R. F. RAFFAUF. 1960. *Prestonia:* an Amazonian narcotic or not? Bot. Mus. Leafl., Harvard Univ. **19:** 109-122.

SPRUCE, R. [A. R. WALLACE Ed.]. 1908. Pp. 414-437 *In:* Notes of a Botanist on the Amazon & Andes. II. Macmillan and Co., Ltd., London, England.

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